

1. Please explain the following terms:(15%)
- CAD/CAM
 - BOM
 - DFM
 - MPS
 - MTBF

2. Given the following historical data:

week	1	2	3	4	5	6	7	8	9	10	11	12
value	17	21	19	23	18	16	20	18	22	20	15	22

- Please find the forecast F for week 13 via exponential smoothing with $\alpha = 0.2$. (12%)
- Please find MSE and MAD for the forecast of week 2--12. (6%)

3. NCKU Hospital consumes 24,000 cases tissue annually. The inventory holding charge is 18% of its cost and the ordering cost is NT\$38 per order. Assuming the supplier offers the following discount for different order size:

order size	discount	unit cost
0---3,999	0%	NT\$12
4,000---11,999	3%	NT\$11.64
12,000 and over	5%	NT\$11.40

Please find the EOQ for tissue. (9%)

4. Given the following data for a single machine:

job	A	B	C	D	E	F
processing time	2	8	4	10	5	12
due date	7	16	4	17	15	18

- Please find the sequence for the smallest average flowtime. (4%)
- Please find the sequence for minimizing the maximum job tardiness. (4%)

5. 請解釋下列名詞 (25%, 每題 5 分)

(a) 零基預算法 (Zero base budgeting)

(b) 企業社會責任 (Corporate social responsiveness)

(c) 權變理論 (Contingency theory)

(d) B.C.G. 投資組合矩陣 (B.C.G. portfolio matrix)

(e) 偏好理論 (Preference theory)

6. 依據明茲伯格 (Henry Mintzberg) 之研究, 管理人員所扮演的角色
有哪些? 試中論之。 (10%)

7. 試述企業外在環境之類別及其對企業營運之影響。 (15%)